and then received patients from there at the age of puberty, but none of them have been juvenile tabes.

At one time I collected sixty-nine cases of general paresis including some cases of tabo-paresis. The youngest of these was twenty-six years old. Since then I have seen one case that was twenty-three years of age. Optic atrophy is, as Dr. Barkan says, rather infrequently observed in the adult tabetic as compared with the ninety-five per cent. in juvenile tabes, and especially so in general paresis. I have seen a number of cases of optic atrophy in paresis, but they have usually been of the tabo-paretic type. A noted baseball player came lately into my care, who did not show mental symptoms until a year or more after the optic atrophy was complete.

Dr. Kaspar Pischel, San Francisco, said: The suggestion of the essayist to send these children to a training school for the blind reminds me of the late Dr. Emile Javal, the famous inventor of the ophthalmometer. When over sixty years old he lost his sight through glaucoma. He then wrote a book, "Entre Aveugles," which every occulist should read. Javal advises in cases in which the sight is slowly, but surely diminishing, as in atrophy of the optic nerve, teaching these unfortunates the occupations and reading of books for the blind, early, because the little sight they still have will help them greatly in acquiring this accomplishment.

Also discussed by Dr. Hulen, of San Francisco, Dr. Church, of Venice, and Dr. Jordon, of San Jose.

Dr. Barkan, closing discussion: As regards therapie speaker states that there was no treatment of these cases: Salvarsan, as suggested by Dr. Hulen might be worth trying. As regards the application of Mendel's law, the family history cannot be traced back far enough, and in the cases reported before 1908 but little mention is made of the state of health of the parents: the possibility of a specificity of the spirocheta as regards its tendency to produce either tabes or gross tertiary lesions has been recently raised, especially by Erb: the possibility of this seems supported by Spielmeyer's experiments, who succeeded in giving to alternate series of dogs tabes in one series, initial syphilis with its lesions in the other series; for a more detailed account of this possibility the speaker would refer to a paper on Tabes and Basedow to be shortly published in the Boston Medical and Surgical Journal.

FEEDING IN THE FIRST MONTH OF LIFE.*

By ADELAIDE BROWN, M. D., San Francisco.

The importance of the human milk supply has received new emphasis from the work done in the past two summers with human milk as an adjunct to difficult infant feeding problems, on the Boston Floating Hospital. A daily milk route has been established for collecting human milk by a trained nurse, and it is used in the most critical cases for part of the feedings with far better result than any modifications of cows' milk have given. This study emphasizes the importance of preserving even a partial supply of human milk for the infant. Supplementary feeding is an easy matter in comparison with complete artificial feeding.

Modification of human milk is required in certain cases, especially during the first weeks of life in feeble or premature infants. The weaker suction power of such an infant tends to make the supply less and the quality heavier. The same is true of all artificial appliances for emptying the breast. However, a compromise is necessary where a milk too rich in proteids or fats exists; it can be fed diluted after being pumped from the breast. Such milk should be kept on ice, in sterile dishes, and diluted with boiled water to which 5 per cent. of milk sugar has been added, so that the carbohydrates of the food shall not be diminished.

Such modification of human milk I have found necessary and successful in two cases of general eczema occurring at two weeks of age, where the fat of the mother's milk stood at 6 per cent. (Babcock). In one case three feedings a day were given of condensed milk (low in fat and proteid) and one-half ounce of water fed the child before each breast nursing. An ability to digest mother's milk developed after three months, while what looked like a difficult eczema situation subsided in three weeks.

We have done some experimenting in institution and private work on intervals between feedings in the first month of life, and having wandered to the two and one-half, three and even four-hour intervals, have returned to 10 feedings in 24 hours for the first six weeks, reach three-hour feedings by three months, and no feeding from 6 p. m. to 6 a. m. by six months if possible.

One argument for the two-hour feeding is the mechanical stimulus to lactation of the act of suckling. In the first month of life a thorough establishment of this function is necessary, and in many cases failure is due to a disregard of small details. A pessimistic attitude on the part of doctor or nurse often discourages the mother.

Starvation temperature has aroused some skepticism and has been laid at the door of septic infection. It is a condition often overlooked in private work, where routine observation of temperature in the infant is less frequent. The cases that I have seen, and they are fairly frequent, occur on the second and third days, and the temperature disappears on giving the infant 5 per cent. sugar solution one-half to one ounce every two hours. Such babies have always lost in weight more than the average for the time, have dark dry skins, brown stools, and are hard to rouse to nurse. The symptoms disappear rapidly, with the fluids and the establishment of lactation.

Lavage in connection with regurgitation and vomiting in the first weeks of life, I have only used once. Abundance of water with each feeding, and a longer interval between feedings, has corrected the difficulty in nursing infants.

Gavage has been of great value in the feeding of several feeble and premature infants. It is quickly learned by a skilful nurse and is less likely to traumatize the mucous membrane than

* Read before San Francisco County Medical Society.

O'R.	I.	Milk V-10 1032 Fat 2.6	7.6 Wt. day V-4 fat glob. many no increase fat few fatty acids	Wt. day 7.14 V-10 some some increase few		
B. (34) Ipara Forceps	II.	Milk V-10 1032 Fat 3.5	V-4 8 lbs. no fat glob. no fat glob. + acetic acid many fatty acid crystals	V-8 no occas. glob. few	8.12½ V-10 no many some	
J. 38 IIpara	III.	Milk 1030 Fat 3.3 Wt. 8.6 day	V-8 6.6 no fat drop many some fatty acid crystals	6 no many many	6.14 3 wks.	
C.	IV.	V-18 No Occasional No fatty acids	V-11 wt. day few many fat droplets many	V-27 no some many	wt. day 8.7	
S.	V.	V-27 many 7.10 slight increase many	7.4 few + many many	8 lbs.		
P.	VI.	V-4 occasional slight increase very few fatty acids	V-10 no many many	V-15 no many few	V-16 no many many	
Ca.	VII.	V-15 no some fat droplets many fatty acids	V-16 occasional many some	V-21 occasional no increase many	V-23 occasional many many	
Go.	VIII.	V-15 occasional many fat globules many fatty acids	V-16 many slight incr. many	V-18 no many many	V-21 no many few	V-23 few many many
Ja.	IX.	V-27 occasional many fat droplets many fatty acids				

feeding by a pipette or spoon, and the child is less likely to be chilled in the process.

During my present service at the Alexander Maternity, with the co-operation of the laboratory and the interne on the service, a study of the fat-digesting and fat-assimilating power of nine breast-fed, new-born infants has been made—twenty-five examinations of stools, and three of mother's milk, where the Babcock test for fat content was done. The examinations were made of three fragments of the infant stool: one alone, one stained with Sudan III, one stained with Sudan III and a drop of glacial acetic added and boiled. In the first specimen we get a general idea of the stool; in the second, the fat globules and fatty acids show up clearly, and on addition of the acetic acid and re-crystallization on cooling, fatty acids and fat globules are liberated from the soaps formed in digestion.

The conclusions from these tests would show that the new-born infant acquires rapidly the power to split up the fats into soaps and fatty acids, and the amount of the latter and the small amount of increase of free fat show that the digestion of fat is a stronger power in the early weeks of life than its assimilation.

The gain in weight of these infants in the three weeks was one pound average. They were all normal, healthy infants, with no complication save forceps delivery for three.

The non-assimilation of fats is therefore not a pathologic but a normal condition, and the supply of more than can be assimilated is nature's course, if one is justified in a conclusion from so small a group of cases.

CENTRALIZATION OF PUBLIC HEALTH ADMINISTRATION.

Prepared by JOHN NIVISON FORCE, M. D., Assistant Professor of Epidemiology, University of California, in conjunction with a Committee of the City Attorneys' Association of Northern California.

INTRODUCTION.

By B. D. MARX GREENE, Berkeley.

For a number of years, as City Attorney for several small towns in Contra Costa County, I have had unpleasant experiences with the general public health regulations which usually pertain to small communities. Our water has been polluted and unfit for human consumption, and it is doubtful whether any of the milk sold in the towns measures up to the required standards; there is no inspection of meat, and, in one town at least, disease-breeding nuisances abound and cannot be abated. This has all been brought about owing to the lack of proper health regulation enforced by full-time officers.

Again, as City Attorney of Berkeley several years ago, I helped in the preparation of a model milk ordinance under which competent inspectors were appointed. Other cities at or about the same time also adopted similar ordinances and their inspectors covered the same ground outside of the cities in the inspection of dairies which our inspectors covered. There was, therefore, grave duplication of time, salary and expense.

These two illustrations serve to show the chaotic state of our public health administration since